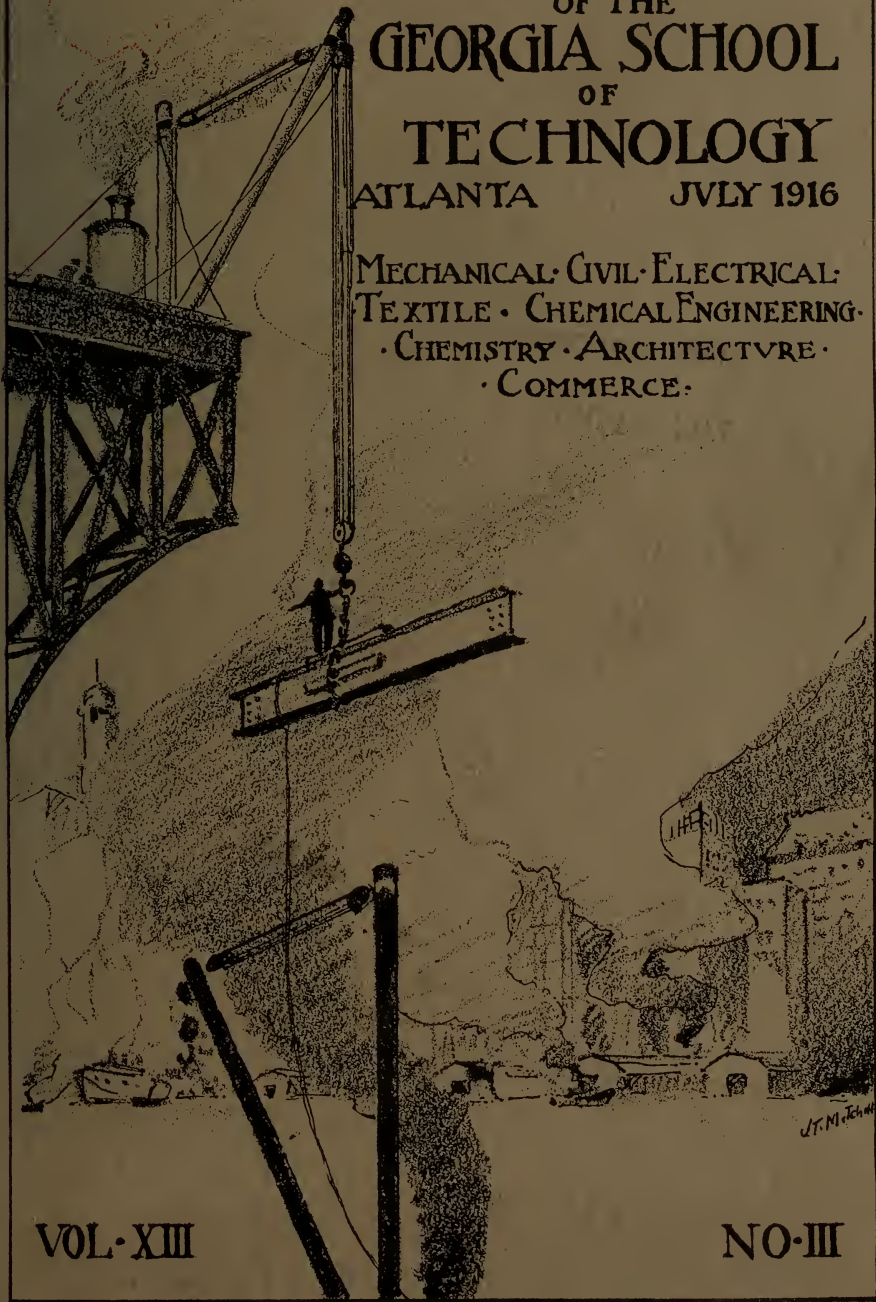


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1916

BULLETIN  
OF THE  
GEORGIA SCHOOL  
OF  
TECHNOLOGY  
ATLANTA JULY 1916

MECHANICAL • CIVIL • ELECTRICAL •  
TEXTILE • CHEMICAL ENGINEERING •  
• CHEMISTRY • ARCHITECTURE •  
• COMMERCE •



VOL. XIII

NO. III



# BULLETIN OF THE GEORGIA SCHOOL OF TECHNOLOGY

A Booklet which aims to give  
some general facts about the  
courses of study and about  
student-life at this institution.  
The illustrations used are repre-  
sentative but by no means  
exhaustive. ♦ ♦ ♦ ♦ ♦ ♦

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Entered at the Post Office at Atlanta, Ga., as second-class matter, under Act of  
Congress July 16th, 1894

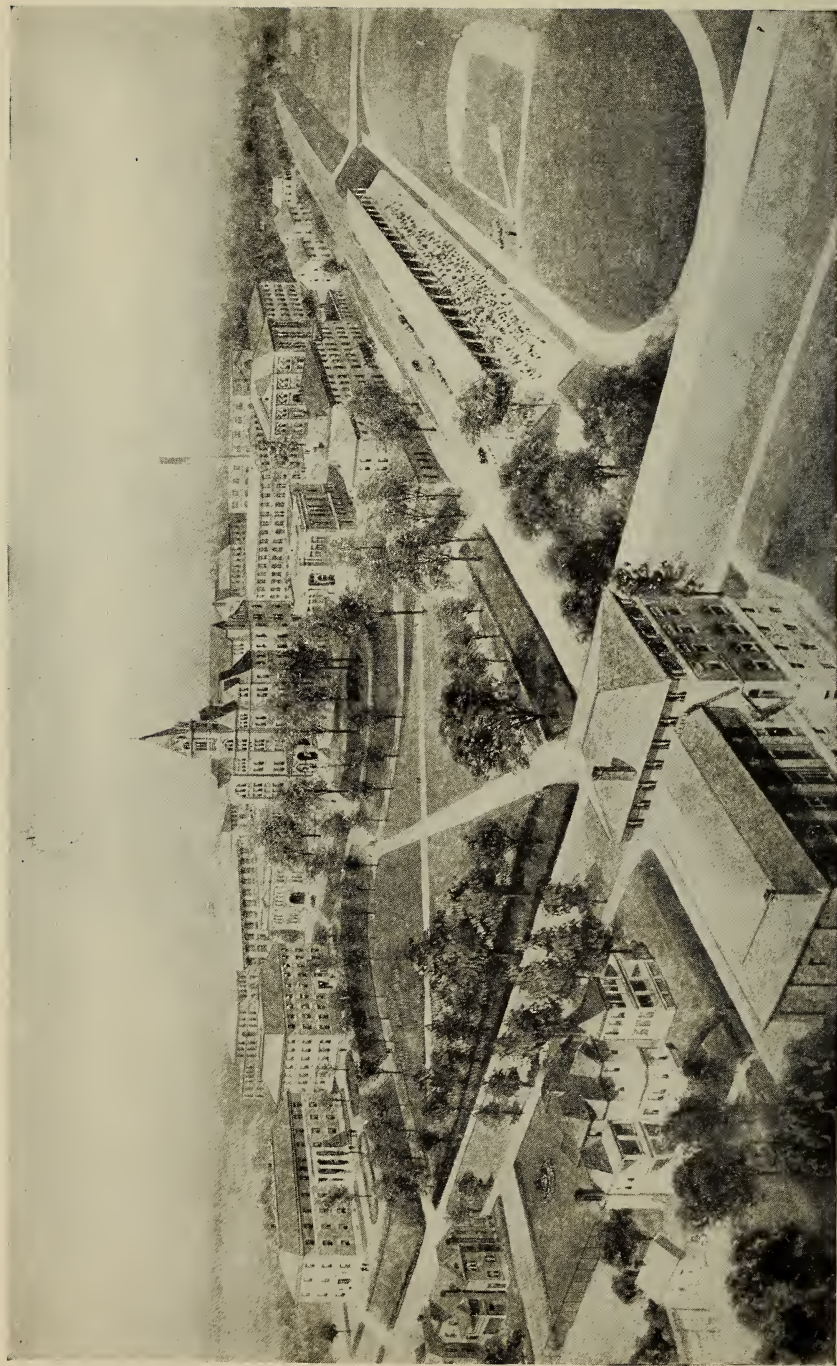
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PUBLISHED FIVE TIMES A YEAR BY THE GEORGIA SCHOOL OF TECHNOLOGY

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ATLANTA, GA.  
♦♦ JULY, 1916 ♦♦

VOLUME XIII  
NUMBER 3



BIRD'S EYE VIEW OF THE PLANT OF THE GEORGIA SCHOOL OF TECHNOLOGY.



# The Georgia School of Technology

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## AIM.

The aim of the Georgia School of Technology is to educate young men for lives of greater usefulness—to give them a training which will enable them to rise to positions of leadership in the business and industrial world. The courses offered are Mechanical Engineering, Electrical Engineering, Civil Engineering, Textile Engineering, Chemical Engineering, Chemistry, Architecture, and Commerce. As a rule, the student gets two years or more of his foundation work in general subjects before he begins to specialize in courses leading to his engineering degree.

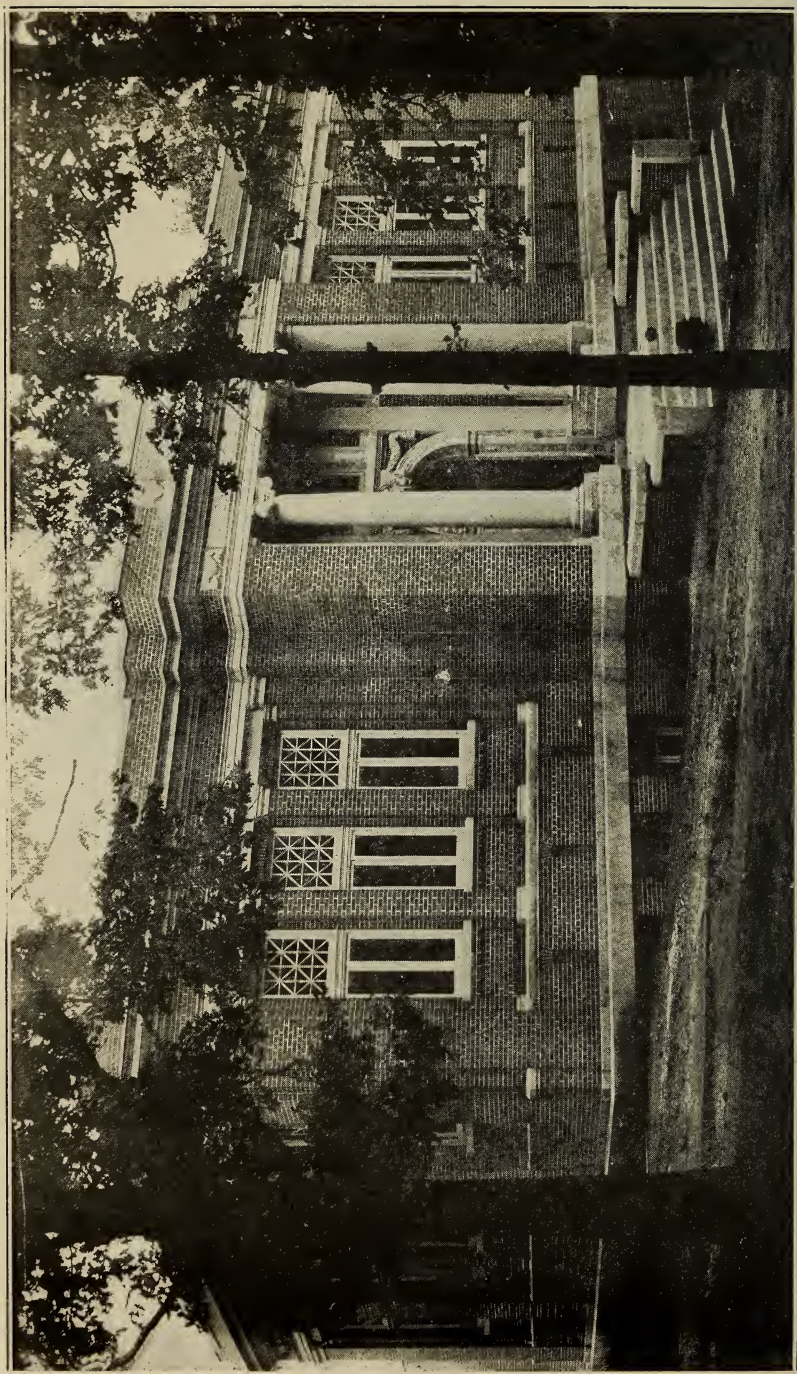
## TECHNICAL TRAINING.

The term, *Technical Training*, as commonly employed refers to education in the useful or mechanical arts. It is sometimes called *Applied Science*, since it teaches the student to use his knowledge or to apply it to some form of serviceable activity. The technical school has arisen from the idea that knowledge is not only something to *have* but something to *use*. Whether the technical school graduate becomes an engineer, or enters some other field of activity, he has a foundation on which to build successfully, for he has been trained in the scientific and in the practical method—he knows how to *think rightly* and how to *work efficiently*.

## ENGINEERING.

Engineering has been defined as “the art of organizing and directing men, and of controlling and using the forces and materials of nature for the benefit of mankind.” The engineer is primarily a producer and not a mere consumer. His work tends to create wealth. He turns useless materials and forces into such things as are highly useful. It is to him that we owe our railroads, manufacturing plants, steamships, canals, water and sewerage systems, gas plants, improved streets and highways, irrigation, bridges, skyscrapers, automobiles, and electrical industries, including water power development, car lines, telephones, telegraphs, lights, etc.

The engineers today who are the leaders in their profession are men with a thorough technical training followed up by the most careful application to practical work.



THE CARNEGIE LIBRARY

This Library, with its excellent collection of general and professional literature, plays an important part in the education of the young engineer.



DESIGN WINNING FIRST PRIZE IN SOUTHERN INTERCOLLEGIATE COMPETITION.  
Problem: "A settlement House"—T. H. Henderson, '16.

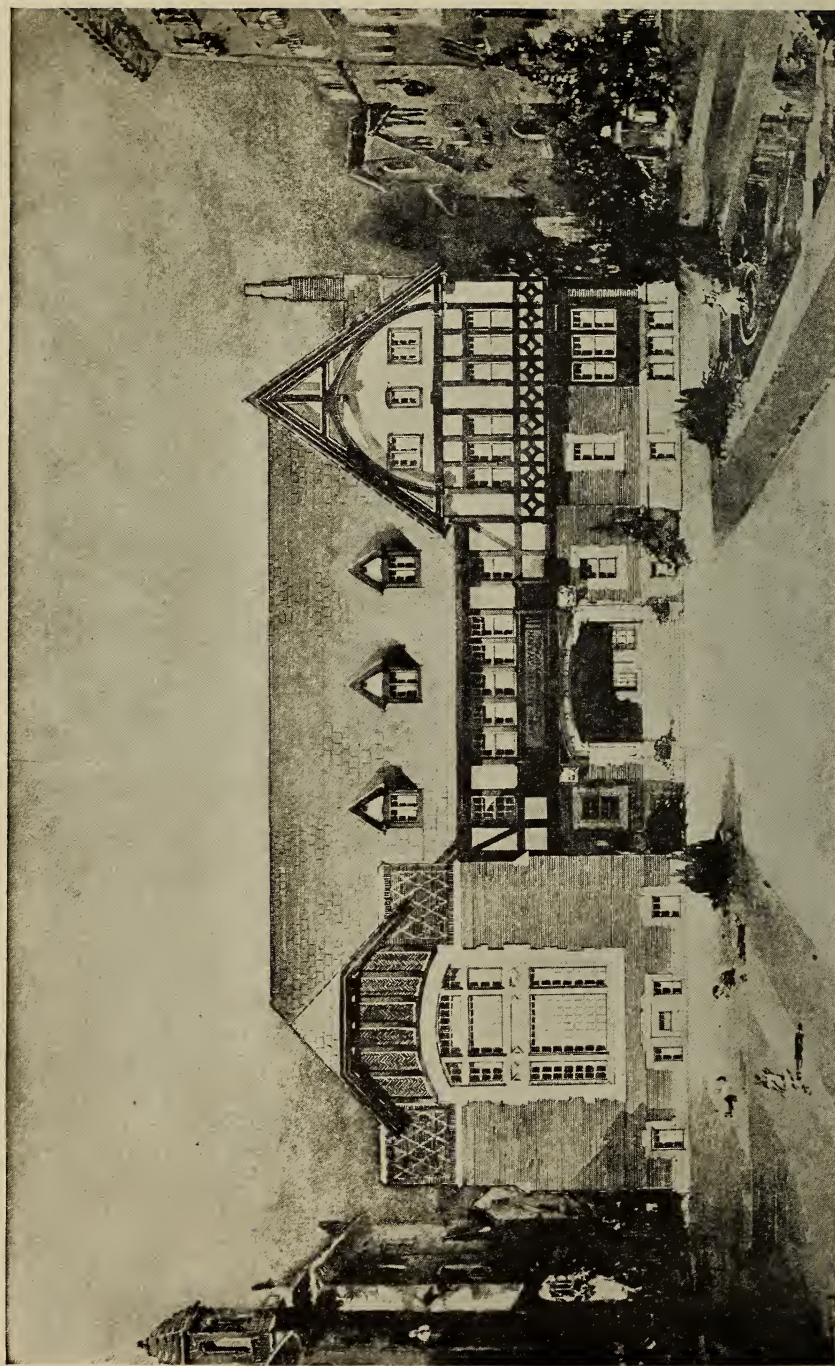
## ARCHITECTURE

In view of the special problems in design brought about by the development of new types of buildings in this country, the field for the capable architect is a broad and fascinating one.

The Department of Architecture at the Georgia School of Technology offers two courses: a regular course of four years, including the general training, which together with the special Architectural work leads to the degree of B.S. in Architecture; and a special course of two years in which only Architecture is studied and for which a certificate is given.

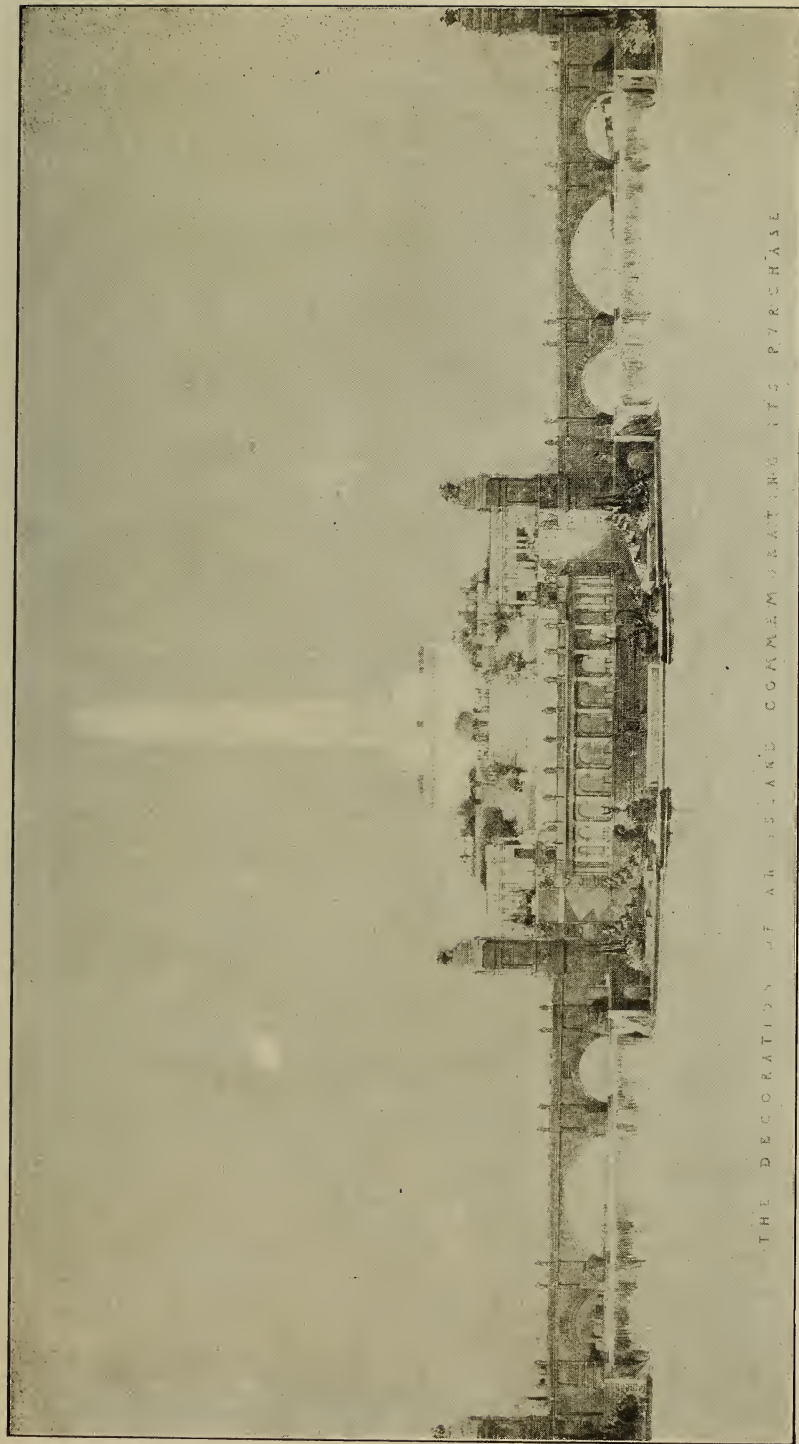
Architectural Design and the subjects closely allied to it occupy the major portion of the curriculum. In the upper classes, whenever possible, problems given out by the Society of Beaux Arts Architects of America are taken. Designs submitted by Georgia Tech students have received awards in almost every competition which they have entered. Twice in three years they have won all the prizes in the Southern Intercollegiate Competition in Architecture. In June, 1915, Mr. P. T. Shutze, a recent graduate of the School, won the Roman Prize in Architecture of the American Academy in Rome, which is one of the most highly coveted honors of its kind in the world. This prize provides residence in Rome and other classical lands for three years.





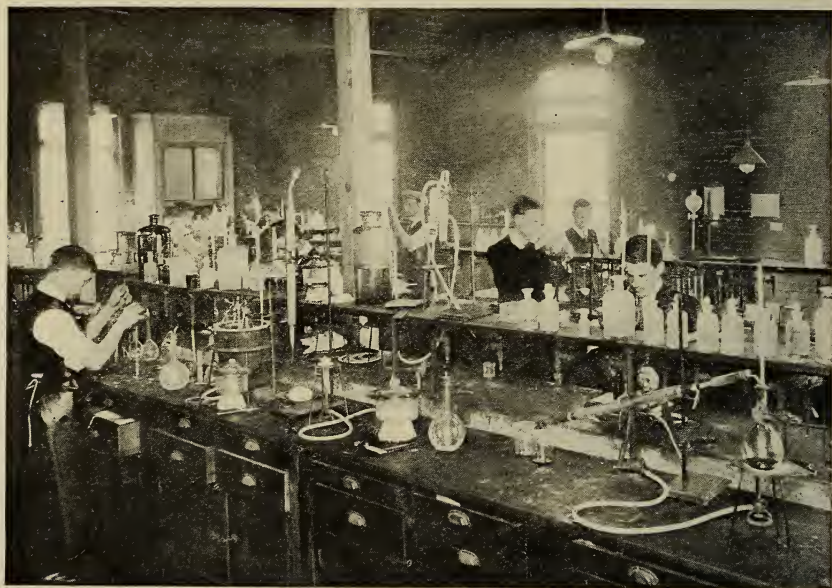
DESIGN WINNING SECOND PRIZE IN SOUTHERN INTERCOLLEGIATE COMPETITION—E. M. JACKSON '16.





THE DECORATION OF AN ISLAND COMMEMORATING ITS PURCHASE

WINNING DESIGN IN A NATIONAL COMPETITION (1915) FOR THE ROMAN PRIZE—Fellowship of the American Academy in Rome.  
P. T. Shutze, '12.



SENIOR LABORATORY.

## CHEMISTRY AND CHEMICAL ENGINEERING.

The rapid development of the mineral and industrial resources of the South creates a demand for men trained to assist in the proper use of raw products and the utilization of waste materials by means of chemical control exercised by accurate chemical analyses and aided by application of engineering principles. Moreover, the partial paralysis of certain industries on account of the European war emphasizes the need for those equipped to guide us in the home production of commodities which we have been obtaining only from foreign factories.

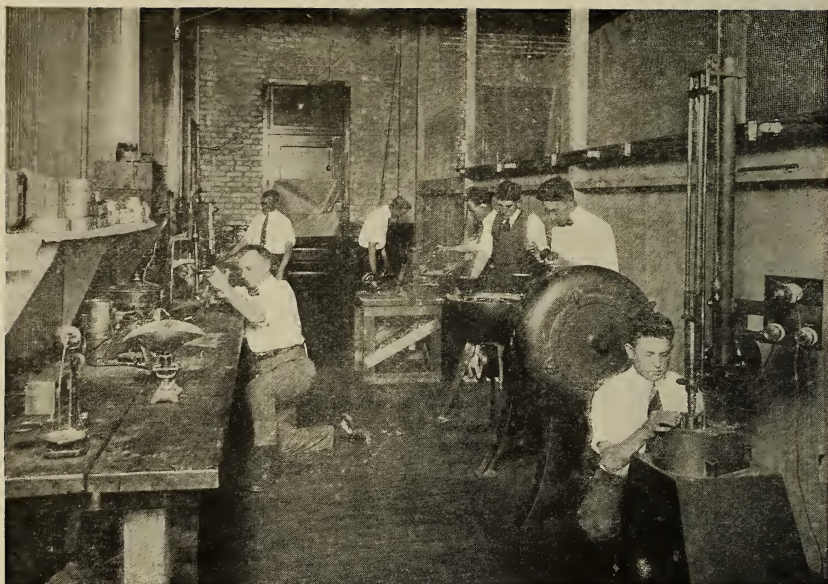
To meet these urgent needs, this institution offers two courses leading to degrees, and is well provided with the laboratories, books, and apparatus necessary for the purposes. In the course in Engineering Chemistry the students are well grounded in Physics and various chemical and engineering subjects so as to insure their ability to take up satisfactorily any line in which Chemistry is applied to the industries. The course granting the degree Bachelor of Science in Chemistry, on the other hand, substitutes for the engineering subjects, studies in Geology, Mineralogy, and Assaying, and more extensive chemical analytical methods, thus meeting the demand for skilled chemists and analysts in those lines not demanding engineering knowledge.



A. FRENCH TEXTILE SCHOOL AND  
LYMAN HALL LABORATORY OF CHEMISTRY

THE LYMAN HALL LABORATORY OF CHEMISTRY.  
The A. French Textile School in Background.





GOOD ROADS LABORATORY  
Students testing various road materials.

### CIVIL ENGINEERING.

A course in Civil Engineering trains a man for such work as the planning and construction of railroads, highways, bridges, canals, water-works and sewerage systems, hydraulic power development, irrigation and drainage systems, and concrete and steel structures of various kinds.

Civil Engineering is taught at this institution in two courses both of which give the student a foundation for successful work in the particular field in which he may specialize. The first course aims to train him primarily for Railway and Structural Engineering. The second deals especially with Municipal and Highway Engineering—a field of unusual importance and opportunity on account of the great movement for modern water and sewerage systems and the demand for engineers with special knowledge of road materials, and of modern highway construction and maintenance.

The department of Civil Engineering at Georgia Tech has special advantages through a system of co-operation with Fulton County and the City of Atlanta. The Head of the Department of Highway Engineering is also the consulting Highway Engineer of the county and the city, and the city specialist in water supply and sewage disposal gives two courses at the School in Sanitary Engineering. The various engineering works of city and county are open to the students for practical inspection.

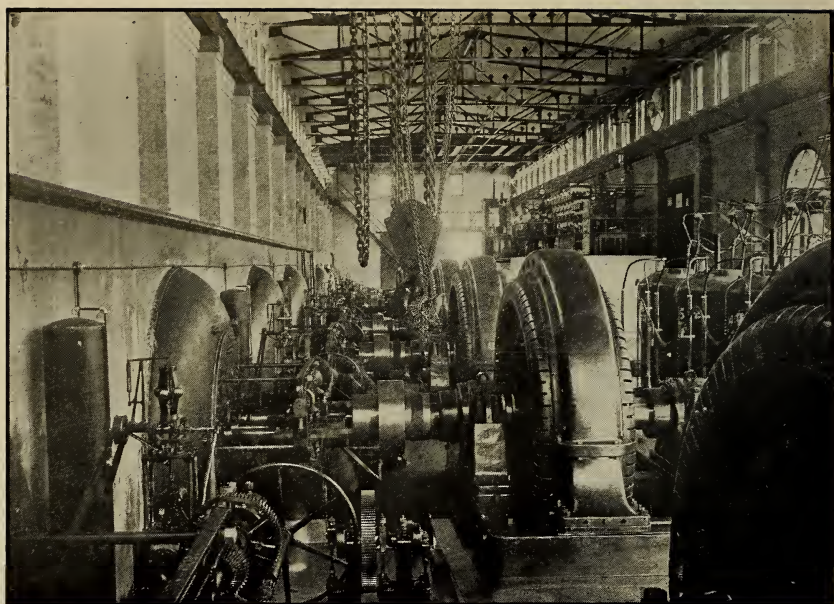


STRUCTURAL WORK IN STEEL.



STRUCTURAL WORK IN CONCRETE.





A HYDRO-ELECTRIC POWER STATION OF THE GEORGIA RAILWAY AND POWER CO.  
The General Manager and Some Twenty Other Officers or Engineers  
of This Company Are Georgia Tech Men.

## ELECTRICAL ENGINEERING.

The great hydro-electrical development in the southeastern states has opened an ever-growing field for the electrical engineer. The United States Geological Survey has estimated that the streams of the South have available about 5,000,000 h. p., and the future will see greater and greater developments as the demand increases for electrical power not only for public utilities such as car lines and lights, but also for running our cotton mills and other manufacturing plants.

The course in Electrical Engineering at Georgia Tech aims to cover all the various applications of electricity for practical or useful ends, such as the design, construction, and operation of generators, motors, transformers, electric railways, lighting plants, telephone and telegraph systems, etc.

There are a great many men without technical training, who are working in the various electrical industries, but the real electrical engineers are those who have a scientific training which enables them to mount above the common workman.





A SECTION OF THE ELECTRICAL ENGINEERING LABORATORY.



#### SOME PRODUCTS OF THE FRESHMAN WOODSHOP

The object of the Shop Course is not to train Artisans, but to give Shop Experience to all Students.

### MECHANICAL ENGINEERING.

The course in Mechanical Engineering aims to equip men for successful work in the design, construction, operation, and testing of machinery, such as steam engines, gas engines, pumping machinery, steam boilers, transmission machinery, railroad equipment, etc. The steel industry, cotton and cotton oil industry, railroading of all kinds, building construction, and many other similar activities demand men competent to deal with the theoretical, or scientific, as well as with the practical side of commercial and constructive work.

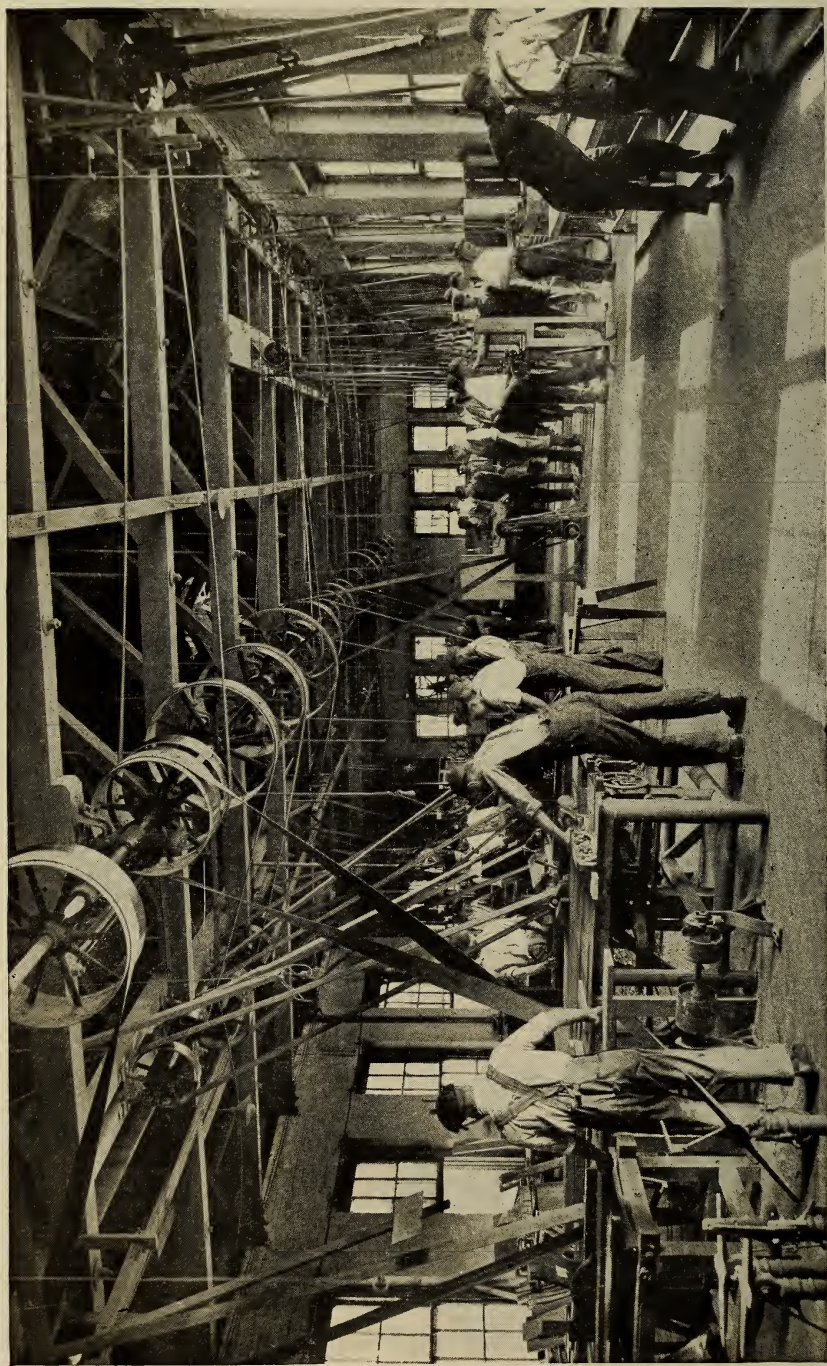
Mechanical Engineering is taught in both its theoretical and its practical aspects. In addition to his courses in the class room, the student works in the wood shop, smith shop, foundry, and machine shop—he learns to *do* as well as to *know*. Finishing work is done in the new \$200,000 Power Station and Engineering Laboratory.



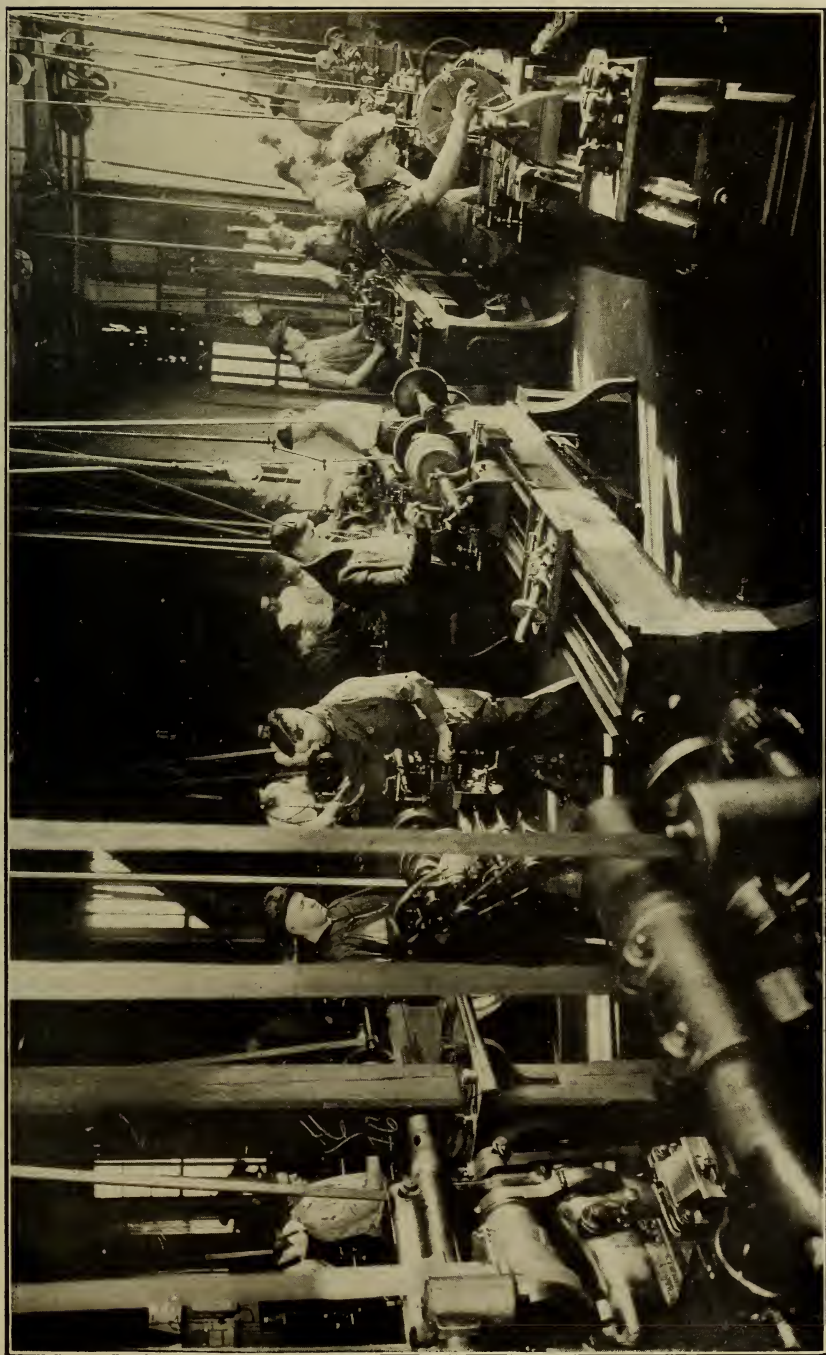


A CORNER OF THE WOODSHOP—Students Doing Bench Work.



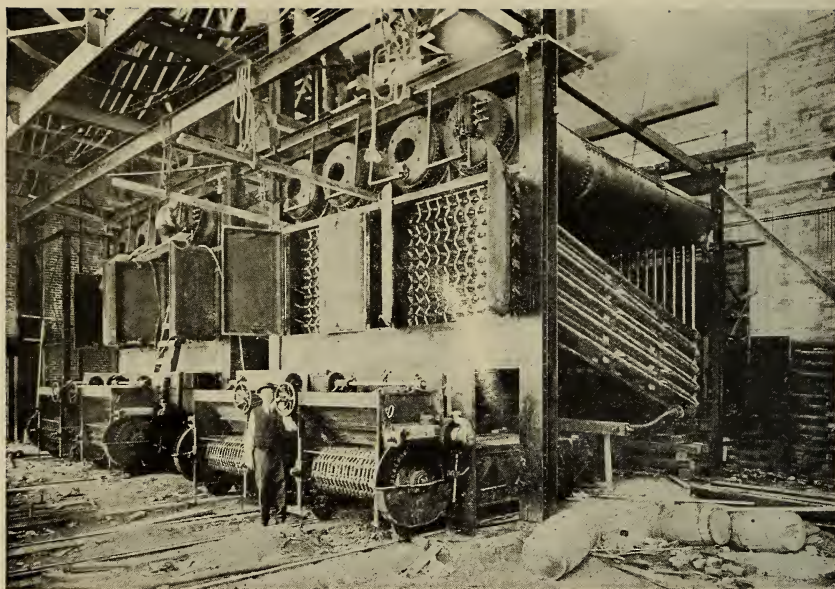


FRESHMAN WORKING AT LATHES AND PLANERS.



SOPHOMORES IN MACHINE SHOP—LEARNING BY DOING.



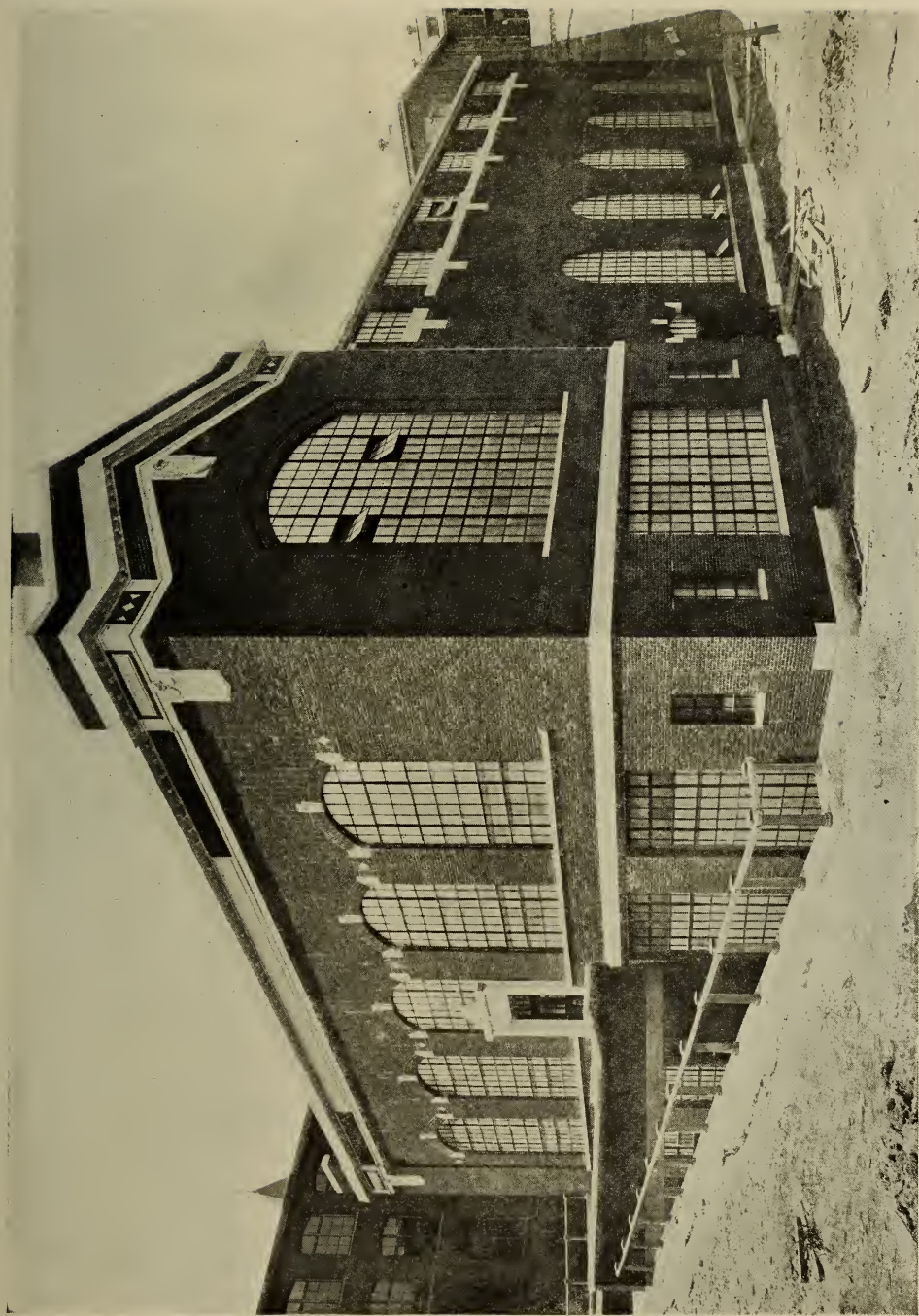


ERECTING THE BABCOCK AND WILCOX BOILERS IN POWER STATION.  
These boilers are equipped with chain grate stokers, super-heaters, etc.

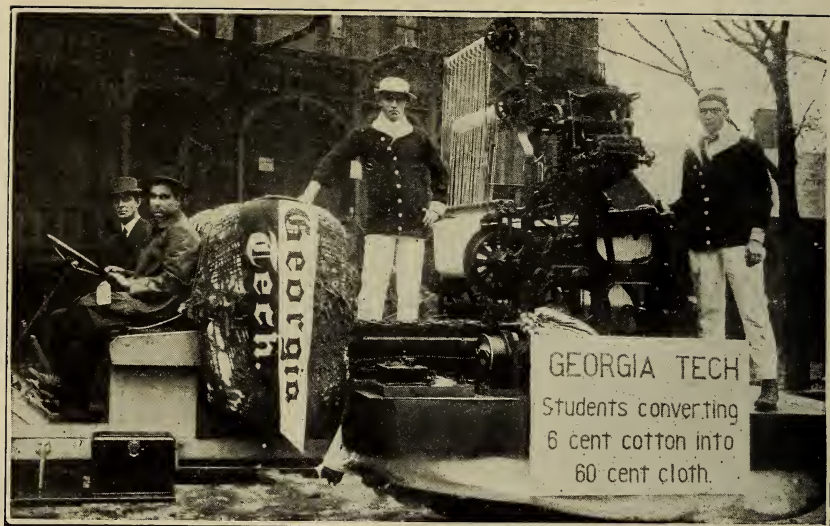
## NEW POWER STATION AND ENGINEERING LABORATORY.

The new Power Station and Laboratory will be ready for use during the coming session. It is designed not only to supply light, heat, power, compressed air, high pressure water service, and refrigeration, but also to furnish a high class laboratory of instruction and experimental work. It will place this school in a position to turn out engineers thoroughly fitted to undertake large power problems in steam and hydraulic plants. The large amount of undeveloped water power in the South, as well as our vast resources in coal supply, make it vitally important that engineers receive thorough instruction in a power laboratory of this kind. This building is the beginning of a plan to establish complete equipment for all kinds of engineering research work, and it will open unlimited opportunities for the graduate of the school in original and scientific investigations as well as in the regular field of engineering work. The Power Station equipment, valued at \$100,000.00, has been largely donated by manufacturers. It is modern and complete in every detail and far superior to that usually found in Engineering institutions.





THE NEW POWER STATION AND ENGINEERING LABORATORY.  
This building will contain a complete equipment of the most modern machinery.



TEXTILE DEPARTMENT FLOAT IN CARNIVAL PARADE.

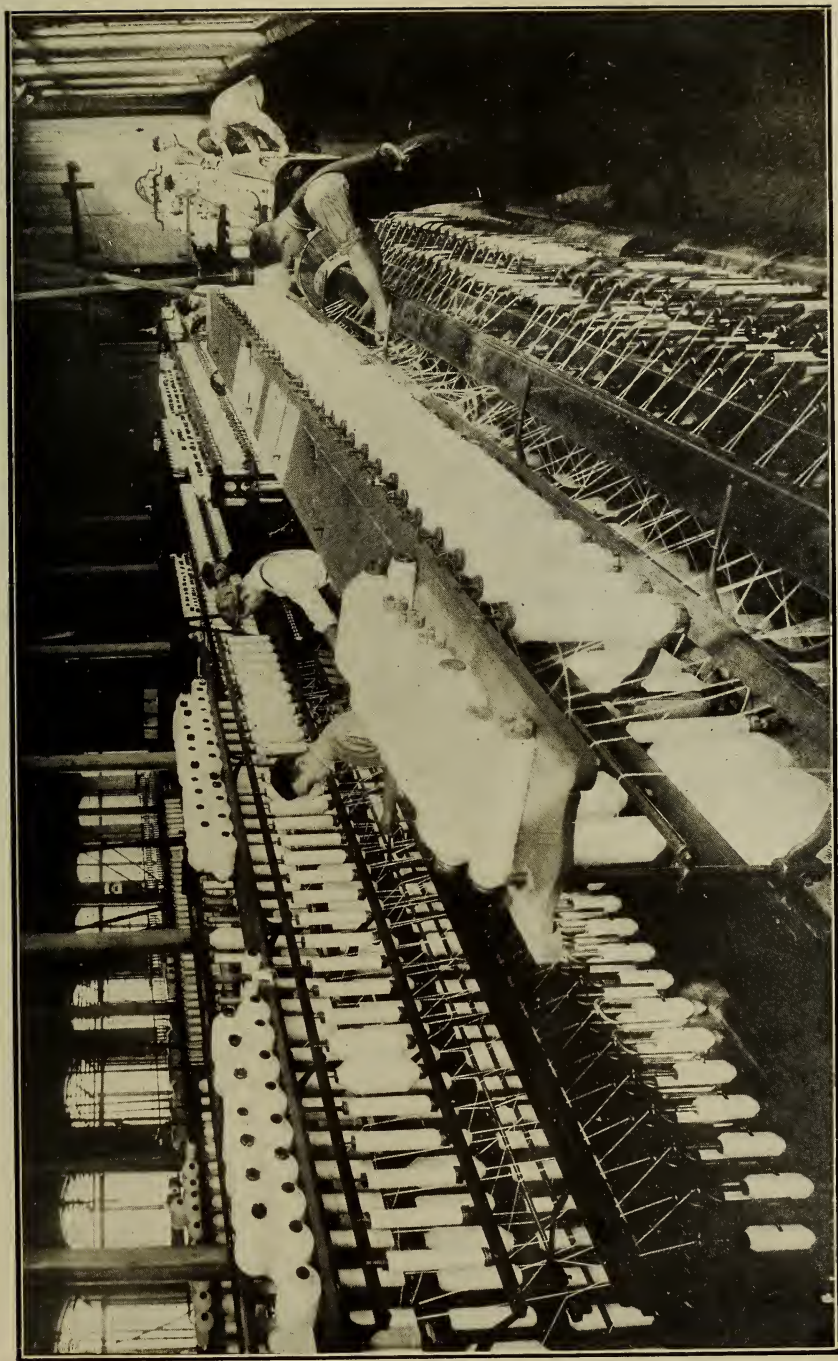
## TEXTILE ENGINEERING.

The A. French Textile School of The Georgia School of Technology is devoted exclusively to the study and practice of cotton manufacturing. This department occupies an entire building of three stories, which contains one of the most complete collections of modern cotton mill machinery to be found anywhere. Every process from the raw cotton to the finished fabric, including Dyeing, Fabric Analysis, and Fabric Design, is thoroughly taught both by theory and by practice.

In addition to the regular four-year course leading to a degree, the Textile Department offers a special two-year course for young men who are not able to remain longer. In this course the student devotes practically all of his time to textile subjects, but misses the valuable training in other studies, which he would get by completing the work for his degree.

The South needs engineers of all kinds for the proper development of its resources, but, because of the magnitude of the cotton industry, it needs, perhaps, more textile engineers than any other type.





TEXTILE STUDENTS DOING PRACTICAL WORK IN THE SPINNING DEPARTMENT.



## CO-OPERATIVE COURSES IN ENGINEERING.

Arrangements have been made with a number of the Atlanta manufacturers which enable The Georgia School of Technology to give courses on what is known as the Co-operative plan. Students taking these courses work two weeks in the class rooms and laboratories, and the next two weeks in the shops and factories, learning, under actual commercial conditions, the practical side of what they have studied in the school. This alternation between shop and school continues throughout the year (with a vacation of three weeks) for the five years of the course. The student is paid by the manufacturer for his work, and this helps many a worthy young man to pay a part of his expenses, though it is by no means the chief aim of the co-operative system.

This outside work is watched as carefully as the school work, and applications of the theory to the practical work are constantly brought to the student's attention. A careful study is made of the successes and failures, and an attempt is made to direct the work of each one into the channels where his natural aptitudes may find their fullest outlet.

Nothing included in the regular courses is omitted, and at the end of five years the student receives his regular degree, and, in addition, has to his credit a great deal of practical experience which is exceedingly valuable.

## THE SCHOOL OF COMMERCE.

The School of Commerce is a special department recently organized for two purposes. The first of these is to give the business man a college training, and the second is to give the engineering student a business training. To carry out the former purpose, the Department offers a course in Commercial Science covering three years, and leading to the degree of Bachelor of Commercial Science. For the engineering student certain courses are added to the curriculum, which are designed to give him some knowledge of business principles, conditions, financial matters, and the ethics that should prevail to business relationships. At present all seniors are required to take a course in Business Organization and Management, and a course in Commercial Law.



THE TEXAS CLUB.



TECH BAND IN COWBOY COSTUME FOR SHRINERS' PARADE.





LOBBY AND READING ROOM, ROCKEFELLER Y. M. C. A.

### Y. M. C. A.

The Y. M. C. A. is the largest student organization at Georgia Tech, and during the past year practically every student availed himself of the opportunity it offers. The Association is the only religious organization among the students, and ministers in various ways to their character and to the spiritual side of their lives.

The building, which is the pride of the whole school, is located directly across North Avenue from the main campus and the athletic field. The two lower or basement floors are devoted to student enterprises and enjoyment. A fine bowling alley, a large pool room and a restaurant are operated for the boys. The offices of the school papers, the Coach's office, the postoffice, a locker room, a barber shop and showers are also on the two lower floors. The main floor consists of a fine lounging room or lobby, two reading rooms, a big auditorium and the secretaries' office. The second floor has the faculty club rooms, the band room, two guest rooms, and an assembly room for the literary societies and devotional purposes. The third floor is a dormitory for upper class men.

The Association, with its excellent equipment, constitutes the real center of the student life. Its splendid new home offers a wholesome atmosphere and adequate amusement, making it unnecessary for a boy to go to the city to spend his idle hours.

The Secretaries have had special training for work among college men, and they stand always in advisory and friendly relation to the students.





Y. M. C. A. BUILDING—OFFICERS—LUNCH ROOM.



1916 BASEBALL TEAM.

This team lost one series in a schedule which included Vanderbilt, Sewanee, Auburn, Georgia, Mercer, Trinity, Mississippi, and W. Va. Wesleyan.

## ATHLETICS AND STUDENT ACTIVITIES.

Students in a school of engineering are usually busier than in an ordinary college, but it would be a mistake to suppose that at Georgia Tech there is not ample time for participating in the various athletic sports and for developing teams which are able to hold their own with the best in the South. The authorities of the School recognize the fact that physical fitness is necessary for the highest success in scholastic work, and that by rubbing elbows with his comrades on the field of sport, a student tends to develop qualities which fit him for life's battles and which no mere book-knowledge can supply. For the various out-door sports, Georgia Tech has an unusually fine athletic field, known as Grant Field, containing two football fields, three baseball diamonds, a quarter-mile track, and six tennis courts. Intercollegiate and class games in football, baseball, basketball, tennis, and track athletics, are encouraged by the faculty, but are not allowed to take up the time which belongs to the more important duties.

Among the activities which make up an important part of college life are the Y. M. C. A., which has already been described, two Literary Societies with their opportunities for training in public speaking; the Dramatic Club, the Mechanical, the Electrical, the Civil, the Textile, the Architectural, and the Chemical Engineering Societies; the musical organizations, including the Band, the Orchestra, the Glee Club; the eleven Greek-Letter Fraternities; the three Honor Societies; and the school publications, *The Technique*, the *Yellow Jacket*, and the *Blue Print*.





1915 FOOTBALL TEAM—Champions of the South.

SCORES:

Tech	52	Mercer	0	Tech	23	U. of N. C.	3
Tech	27	Davidson	7	Tech	7	Alabama	7
Tech	57	Transylvania	0	Tech	0	Georgia	0
Tech	36	L. S. U.	7	Tech	7	Auburn	0





1915 TRACK TEAM.

Won with ease every meet entered—The State Meet, The Tennessee Meet,  
The Auburn Meet, and the Birmingham Meet.



THE TECHNIQUE STAFF.



THE GLEE CLUB.



THE ARCHITECTURAL SOCIETY.





THE AUGUSTA CLUB



THE MISSISSIPPI CLUB.



THE ANAK SENIOR SOCIETY.



GEORGIA TECH BRANCH OF THE AMERICAN SOCIETY OF ELECTRICAL ENGINEERS.



## ENTRANCE REQUIREMENTS.

The requirements for admission to the Georgia School of Technology are as follows:

The applicant shall be not less than 16 years of age, and shall present a certificate from the last school attended, showing his scholastic record, and that he is of good moral character.

For Entrance to the Freshman Class *without condition*, every applicant shall present at least 14 units of high school work, and no student can carry more than two conditions.

## TUITION AND FEES.

The fees for residents of Georgia are \$25 per year when there are not more than fifteen students from the county of the applicant. All students in excess of fifteen from any county pay \$25 tuition per year additional. The other fees are a Student Association fee of \$13, a medical and hospital fee of \$5 per term; and a deposit of \$5 to cover any damage to building or property. Non-residents of the State of Georgia pay \$100 tuition per year in addition to the fees of \$25, \$13, \$5 and \$5 mentioned above. Living expenses vary from \$150 to \$250 per year.

The next session opens September 20, 1916.

For catalog apply to

K. G. MATHESON, President,  
Atlanta, Ga.



A PART OF THE CROWD OF 12,000 AT THE THANKSGIVING GAME.





UNIVERSITY OF ILLINOIS-URBANA



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